

corresponding to a first destination and a second plurality of said data packets have a second destination address corresponding to a second destination;

a second interface for transmitting said data packets to said first and second destinations; and

a mechanism for selecting from said data packets according to their respective destination addresses, said mechanism for establishing a second order for transmitting said data packets that is different from said first order, said second order established by first selecting at least one data packet having said first destination address and then selecting at least one data packet having said second destination address such that during said transmitting said data packets are essentially evenly distributed between said first and second destinations.

2. The network adaptor driver according to claim 1 wherein said selecting is determined solely by said first and second destination addresses.

3. The network adaptor driver according to claim 1 wherein said selecting is determined partly by said first and second destination addresses and partly by when a data packet is received by said first interface.

6. A method for maximizing network parallelism comprising:
receiving data packets in a first order, wherein a first plurality of said data packets have a first destination address corresponding to a first

destination and a second plurality of said data packets have a second destination address corresponding to a second destination;

prior to transmitting said data packets, establishing a second order for transmitting said data packets that is different from said first order by first selecting at least one data packet having said first destination address and then selecting at least one data packet having said second destination address such that during said transmitting said data packets are essentially evenly distributed between said first and second destinations; and transmitting said data packets.

7. The method according to claim 6 wherein said establishing is solely according to said first and second destination addresses.

8. The method according to claim 6 wherein said establishing is determined partly by said first and second destination addresses and partly by when a data packet is received by said first interface.

9. The network adaptor driver according to claim 6 wherein said establishing is determined by a preset, nonadjustable scheme.

10. The network adaptor driver according to claim 6 wherein said establishing is determined by a programmable scheme which takes into account differences in speed and performance paths to particular destinations to maximize network parallelism.

Please add the following new claims:

16. A device comprising:

a first interface for receiving data packets in a first order, wherein a first plurality of said data packets have a first destination address corresponding to a first destination and a second plurality of said data packets have a second destination address corresponding to a second destination; and

a second interface for transmitting said data packets to said first and second destinations;

wherein said device executes a driver that selects from said data packets according to their respective destination addresses, said driver for establishing a second order for transmitting said data packets that is different from said first order, said second order established by first selecting at least one data packet having said first destination address and then selecting at least one data packet having said second destination address such that during said transmitting said data packets are essentially evenly distributed between said first and second destinations.

17. The device according to claim 16 wherein said driver selects from said data packets solely by said first and second destination addresses.

18. The device according to claim 16 wherein said driver selects from said data packets partly by said first and second destination addresses and partly by when a data packet is received by said first interface.